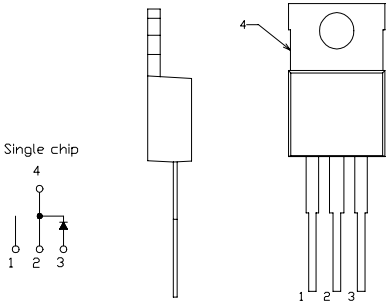


**SBD**   Type : **GSH05A09B**

OUTLINE DRAWING

**FEATURES**

- \*Similar to TO-220AB Case
- \*Low Forward Voltage Drop
- \*Low Power Loss,High Efficiency
- \*High Surge Capability
- \*Tj=150 °C operation



Maximum Ratings

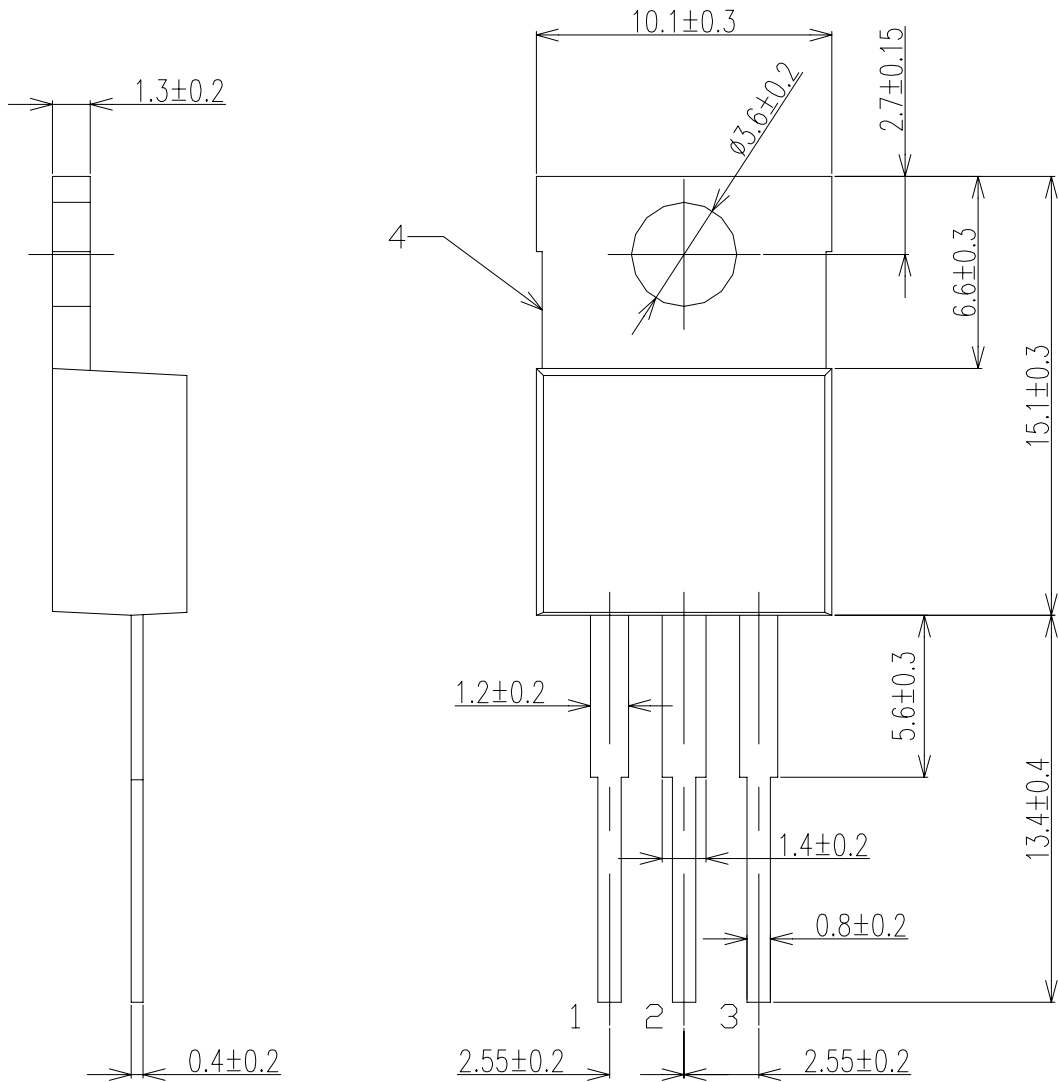
Approx Net Weight: 1.9g

Rating	Symbol	GSH05A09B			Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	90			V
Average Rectified Output Current	I <sub>O</sub>	5	T <sub>C</sub> =127°C	50 Hz half Sine Wave Resistive Load	A
RMS Forward Current	I <sub>F(RMS)</sub>	7.85			A
Surge Forward Current	I <sub>FSM</sub>	120	50Hz Half Sine Wave ,1cycle Non-repetitive		A
Operating JunctionTemperature Range	T <sub>jw</sub>	-40 to +150			°C
Storage Temperature Range	T <sub>stg</sub>	-40 to +150			°C
Mounting torque	F <sub>tor</sub>	recommended torque = 0.5			N•m

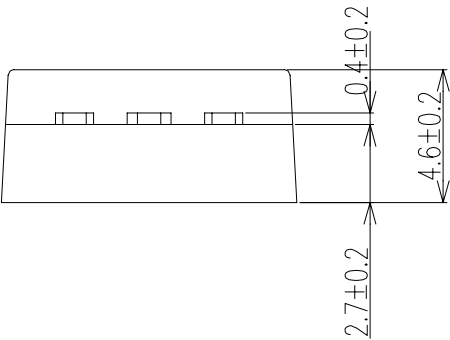
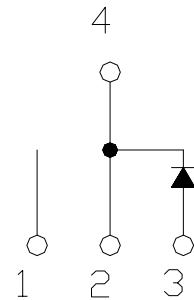
Electrical • Thermal Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I <sub>RM</sub>	T <sub>j</sub> = 25°C, V <sub>RM</sub> = V <sub>RRM</sub>	-	-	1	mA
Peak Forward Voltage	V <sub>FM</sub>	T <sub>j</sub> = 25°C, I <sub>FM</sub> = 5 A	-	-	0.85	V
Thermal Resistance	R <sub>th(j-c)</sub>	Junction to Case	-	-	5	°C /W

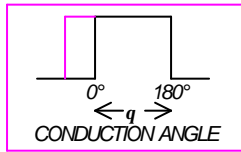
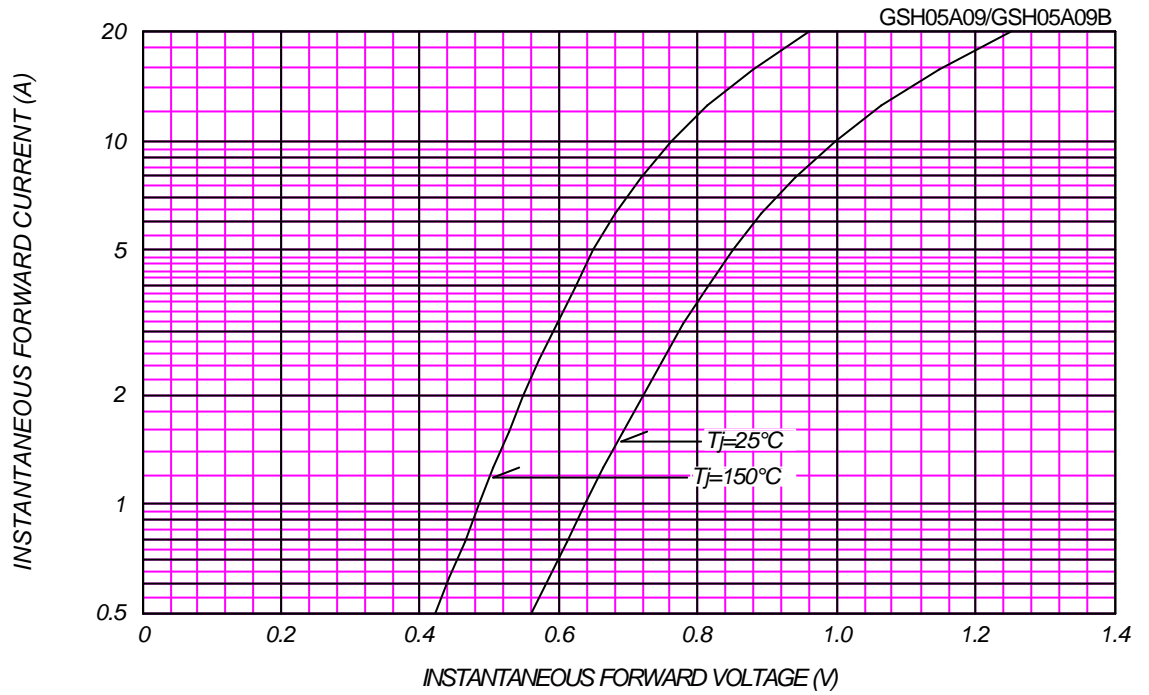
GSH\_B\_ OUTLINE DRAWING (Dimensions in mm)



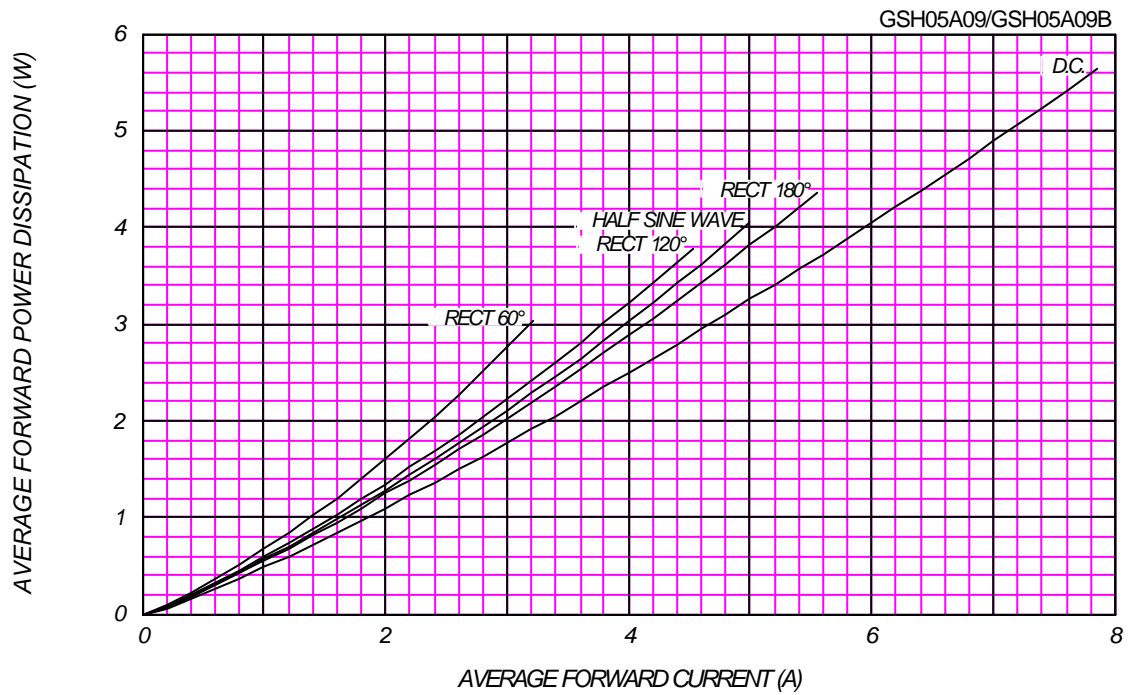
Single chip



# FORWARD CURRENT VS. VOLTAGE



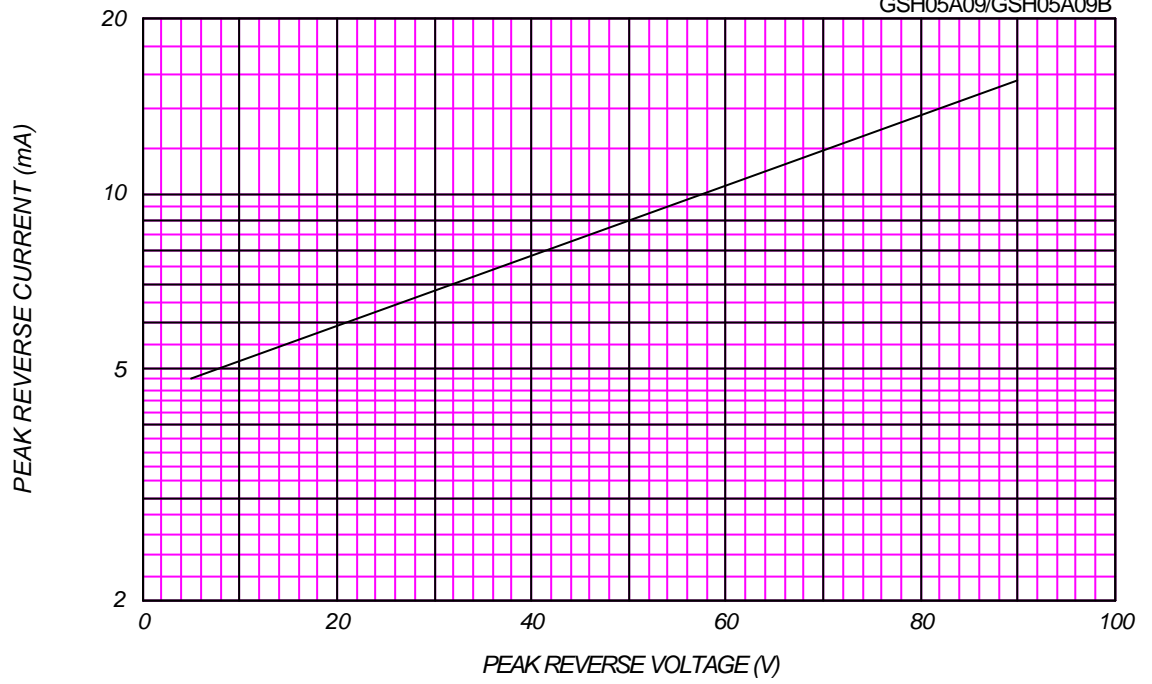
# AVERAGE FORWARD POWER DISSIPATION



### PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

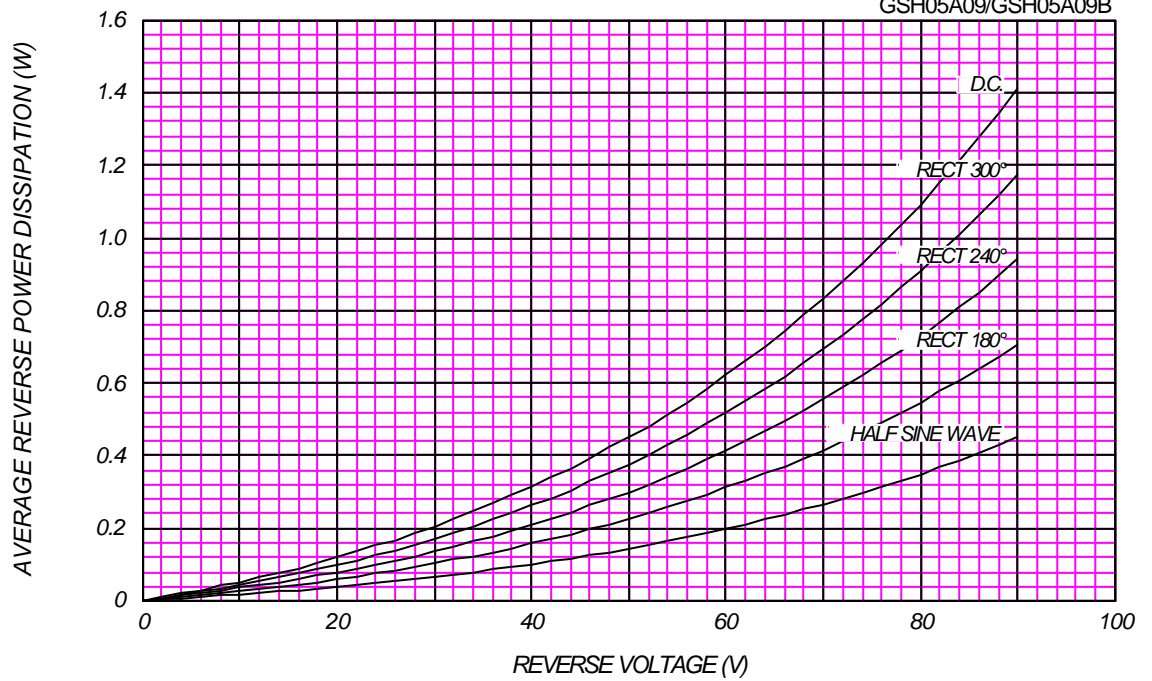
$T_j = 150^\circ\text{C}$

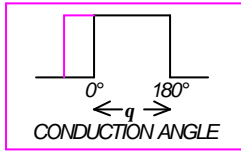
GSH05A09/GSH05A09B



### AVERAGE REVERSE POWER DISSIPATION

GSH05A09/GSH05A09B

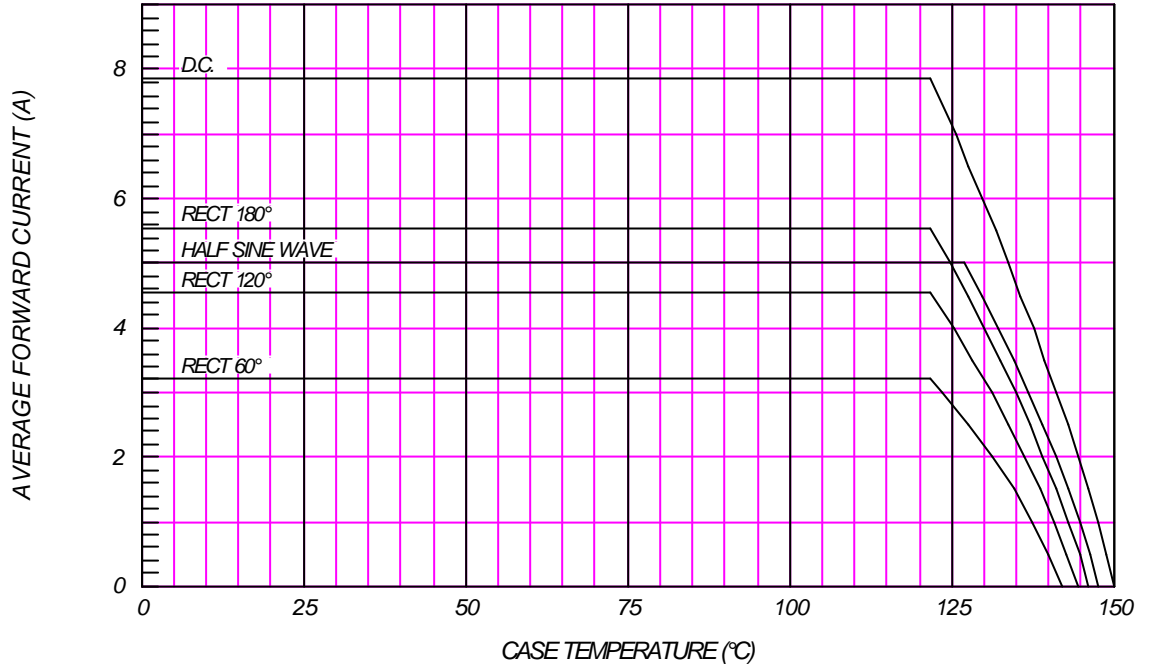




### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=90\text{ V}$

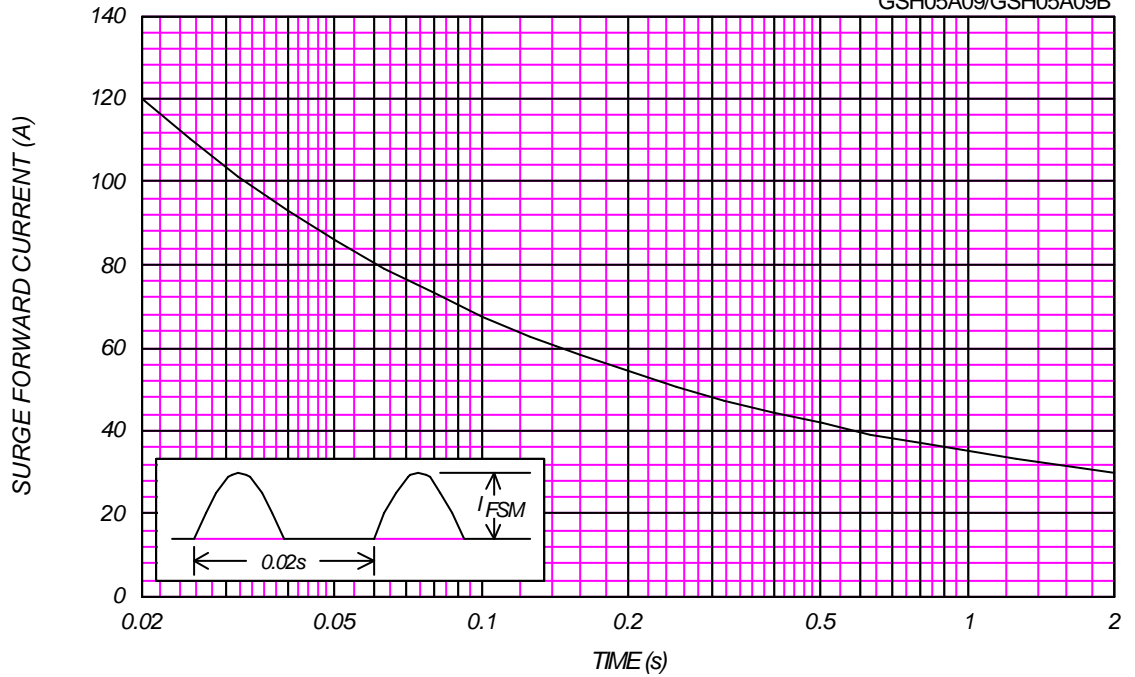
GSH05A09/GSH05A09B



### SURGE CURRENT RATINGS

$f=50\text{ Hz}$ , Half Sine Wave, Non-Repetitive, No Load

GSH05A09/GSH05A09B



# JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

$T_j=25^{\circ}\text{C}$ ,  $V_m=20\text{mV}_{\text{RMS}}$ ,  $f=100\text{kHz}$ , Typical Value

GSH05A09/GSH05A09B

